

REQUEST FOR QUOTE



pennsylvania
DEPARTMENT OF GENERAL SERVICES

**Commissioning Agent
Services**

KUTZTOWN UNIVERSITY

**POPLAR HOUSE
RENOVATION / ADDITION**

Project No. DGS 0408-0067
Phase 1

Technical Submission

**Aramark Engineering
Solutions**

2400 Market Street Philadelphia, PA
19103



July 22, 2022

Cara Desert
PA Department of General Services

Re: Commissioning Agent Services for DGS 0408-0067 P1

Dear Ms. Desert,

We are pleased to respond and provide a proposal and cost estimate for Commissioning Agent Services during the design stages of the Department of General Services Project No. DGS 0408-0067 P1, Poplar House Renovation/Addition project at Kutztown University.

Aramark is familiar with the DGS requirements for construction and has worked on many projects for DGS. Mackenzie Ailes is slated as the project manager for this project and is currently working on DGS 251-38 which is a maintenance facility in Bucks County. Mack has also led projects of similar program and size at Penn State Schuylkill, Penn State Hazleton, and Penn State Abington. **He is located 71 miles from the site and there will be no time charged against travel due to his locality. He is also working at Air Products in Allentown and is frequently in the area.**

Mack will be supported by Allison Bailey, P.E. and Chris Skalski, P.E. for mechanical and controls during design. This team has performed similar tasks for many of our references listed within our response.

We look forward to continuing and strengthening our relationship with the Department of General Services. Should you have any questions, please do not hesitate to contact Matt Campise, Associate Director, at (724) 689-9449.

Sincerely,



Brian Lee, P.E., Vice President, Engineering Solutions
Authorized Signatory of Aramark Management Services Limited Partnership



TABLE OF CONTENTS

A. Contractor Prior Experience	4
B. Project Understanding and Approach	10
C. Geographic Location	13
D. Project Work Plan	14
E. Project Personnel and Qualifications	14
F. Appendix	19

A. CONTRACTOR PRIOR EXPERIENCE

For more than 35 years, Aramark Engineering Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. Whether we're working with higher or primary education clients, we bring a customized approach based on the individual drivers of each organization. Aramark is one of the largest third-party commissioning agents in the United States focusing on education facilities. Our unique operational expertise distinguishes our service from our competitors.

Our commissioning philosophy is guided by the following three tenets:

1. Provide a facility that operates to support the educational program
2. Verify systems achieve peak efficiency
3. Confirm building infrastructure is readily maintainable by the operators

Our services will further facilitate a seamless transition to the operations group and provide a technical resource to support building operations.

Experience At A Glance

Total Projects Commissioned: **900+**

Total GSF Commissioned: **70+ Million**

Constructed Value of Commissioned Projects: **\$11.2 Billion**

Select Aramark Commissioning Clients

- Baylor University
- City University of New York
- Centenary College
- Drew University
- Edinboro University
- Franklin & Marshall College
- George Washington University
- Institute for Advanced Study
- NYS Office of Mental Health
- Ohio State University
- Penn State University
- Princeton University
- Rutgers, State University of New Jersey
- State of Pennsylvania (PADGS)
- University of Pittsburgh
- University of Kentucky
- University of Pennsylvania
- Washington College
- West Chester University
- West Virginia University

FACILITIES COMMISSIONED

- Science, research, vivarium, BSL3 and laboratory
- Large classroom, academic, and computer facilities
- Recreation centers (athletic & aquatics)
- Campus & performing arts centers
- Museums, libraries & cultural institutions
- Residential halls
- K-12 Schools and Campuses
- Heating, cooling plants and major electric infrastructure
- Retro-commissioning of existing buildings and systems
- Hospitals & mission critical facilities



SYKES STUDENT UNION BUILDING RENOVATION | WEST CHESTER UNIVERSITY, WEST CHESTER, PA

CONTACT:

Yeda Arscott
Architect & Project Manager
610-436-2779
yarscott@wcupa.edu

CONSTRUCTION COST:

\$2 Million

GROSS SQUARE FEET:

15,000

CX SERVICES:

MEP Systems Review
Design Review
Installation Inspections
Performance Verification
Operations Training

SCHEDULE:

May 2016 - June 2018

Sykes encourages and provides an environment where everyone on campus can gather to participate and learn through diversity and co-curricular experiences. Striving to maintain a balance of recreational, social, educational, and cultural programs and activities, Sykes consists of the following:

- Study Lounge
- Seminar Space
- 20 Meeting Rooms
- 22-Unit Computer Lab
- 350-seat Theatre
- 5,000 Square Foot Ballroom
- Information Desk and Copy Center
- Dining Services
- Campus Store
- Computer Lab
- Meeting Rooms
- Various University Offices
- Student Services and Business Office

This project was a partial renovation of three floors of the four-floor Sykes Building which is the West Chester University Student Union. The renovation included floors with new air handling equipment serving student lounge and gathering spaces, administrative, and kitchen functions.

**SYSTEMS COMMISSIONED:**

commissioning issues identified \$13,500 cost avoidance savings issues after project completion if the project.

acceptance phase of the HVAC systems identified over 50 issues.

HVAC, ATC, and Domestic Hot Water

A cost analysis of the yield a conservative estimate of calculated for the cost of correcting commissioning wasn't included in

The functional performance testing



discharging 55 entering air temperature. The TAB scope included AHU-9 with downstream diffusers from the new ductwork, although AHU-9 is existing and the fan was not in the scope. While working on traverses, the total CFM was 7600, with a design of 14000 CFM.

The higher priority issues found and resolved include the following:

- **BACNET Card Integration** – The BACNET card was not included for integration to Radius Systems for several hoods and exhaust fans, so the supply fan control was not operating per sequence.
- **CaptiveAire Hood** - The zone temperature sensors were installed high near ceilings which has an impact on exhaust fan control due to the space temperature gradient. There was a concern with building pressurization regarding the difference in total air flow from AHU-10 and the exhaust fans. An issue with wiring was reported because wire was installed in only one conduit, resulting in fan speed control issues.

- **Balancing** – CAV-17 only obtained 73° discharge air temperature in heating while AHU-4 was discharging 57°, although design DAT is 75 with

- **Opposite Season Testing** – A few exhaust fan issues were identified. Exhaust fans EF-5,6,7,8 fan status points were mapped through integration per design, but they are unreliable points for the fan status and AHU-10 supply air flow control. AHU-10 air flow control requires airflow rate conversion of exhaust fans from the balancing report. The exhaust fans should cycle off during unoccupied periods. Also, EF-5,6,8 ATC monitor points for integration, shown on approved ATC submittal for the kitchen hood integration pages, were not registering change in value via trends such as fire condition, prep time button, and lights.



STUDENT ENRICHMENT CENTER | PENNSYLVANIA STATE UNIVERSITY, HARRISBURG, PA



In response to a substantial increase in student population, the Student Enrichment Center was constructed at the core of the Penn State Harrisburg Campus. The 70,000-square-foot Student Enrichment Center houses space for key new and existing student services. It features student lounges, food service with open seating and a convenience store, a spiritual center, the bookstore and offices for student counseling and disability services, honors education, international student support services and international study programs. In addition, it features a 360-seat theater/lecture hall.

Design reviews documented over 114 issues. Submittal reviews focused on commissioned equipment and all submittals were reviewed concurrently with the design team. Aramark documented over 70 issues during static inspections and functional testing. Some of the more notable issues included:

- Sewer and drain piping were routed during construction over an electrical room. This piping was subsequently moved and rerouted to avoid potential damage to the gear,
- A shot feeder was found to be piped incorrectly to the supply and discharge of the heat exchanger. This would create no differential pressure across the feeder. The piping is being rearranged to be across the inlet and discharge of the system pumps.
- A fire protection line was found to be routed through a lobby bulkhead with exterior exposure. The pipe was rerouted to the inside of the lobby. This prevented a major leak during the next winter.
- Aramark found major issues with the air handling unit submittals with the provision of air handling units that could not meet the sequence of operations. The initial line of air handlers were upgraded to a better product to meet the requirements.
- Aramark was greatly involved in the BIM coordination process and assisted in resolving many issues throughout the coordination efforts.
- During design review, Aramark found issues with the air handling unit capacities requiring that the coils be resized.
- Electrical design reviews made significant impact during design including smoke, heat detector placement, exit signage, emergency lighting requirements and electrical labeling. These comments had a very positive impact to life safety and L&I requirements.

CEDDIA UNION BUILDING | SHIPPENSBURG UNIVERSITY, SHIPPENSBURG, PA

CONTACT:

Doug Wenger
Project Manager
814-863-9622
Jdw132@psu.edu

CONSTRUCTION COST:

\$30 Million

GROSS SQUARE FEET:

70,000

CX SERVICES:

Design Review
Installation Inspections
Performance Verification
Operations Training
Building Envelope

SCHEDULE:

May 2014 - July 2016

CONTACT:

Terry Starr
717-477-1123
tlstarr@ship.edu

CONSTRUCTION COST:

\$12 Million

GROSS SQUARE FEET:

120,000

CX SERVICES:

LEED Enhanced
Design Review
Installation Inspections
Performance Verification
Operations Training

SCHEDULE:

June 2008-August 2010



The Ceddia Union Building (CUB) serves as the University Union and Student Activities Center. The CUB strives to enrich the lives of students, members of the university and surrounding communities through educational opportunities, a variety of services as well as co curricular programming.

In December 2012, the CUB completed a major renovation and expansion project, adding new dining facilities and retail locations, a new bookstore, new administrative and student group office spaces, lounges and social spaces, new meeting and conference rooms, event spaces, and a full service UPS store.

Aramark documented over 210 issues on this project during design and construction. In the process of assisting with deficiency correction of many of these issues, a simple payback of one and a half times the commissioning fee was reached.

- During summer operations, a roof top unit was noted with excess condensation on the outside of the unit. Infrared testing of the unit indicated that insulation was missing within a portion of the cover and remaining insulation was completely soaked. This was corrected by the unit manufacturer.
- Aramark noted that chilled water piping was incorrect for a future centralization project. This would not have been discovered until long after the project was accepted and out of warranty.
- Aramark worked with the automated control systems provider to remedy deficiencies that were reported during functional testing.
- Ceiling ties were strapped to a great deal of the mechanical equipment and was remedied by the contractor.
- A summer heating boiler and the steam connection was not operating properly and Aramark identified the deficiency and assisted in the resolution of the issue.
- Aramark discovered that the return damper actuator had broken free from its moorings and the unit was in jeopardy of collapsing the ductwork. This was corrected temporarily by Aramark and the contractor was notified to provide a permanent correction.
- Aramark noted that the heat recovery wheels were not filtered. The unit manufacturer stated that this was not necessary due to the fact that as the wheel spins, anything that is brought in through the outside is blown out with the exhaust. The issue was that the wheel would be shut off when conditions allowed. The University directed addition of prefilters and the mechanical contractor was responsible for cleaning the wheel.

STUDENT RECREATION CENTER | WEST CHESTER UNIVERSITY, WEST CHESTER, PA

CONTACT:

Steve Domenick
Project Manager
610-436-2779

CONSTRUCTION COST:

\$22 Million

GROSS SQUARE FEET:

72,575

CX SERVICES:

Design Review
Installation Inspections
Performance Verification
Operations Training

SCHEDULE:

June 2011-August 2012

The 72,575 square foot Student Recreation Center includes “state-of-the-art” features such as an extensive fitness area on two levels, elevated walking/jogging track, two court gym, multi-activity court, spinning room, aerobic studios, racquetball/squash courts, a three-story climbing wall, social lounges, and a “hydration station” for refreshments. The building is designed to connect to the campus geothermal system to serve the HVAC needs of the building.

At the time of this proposal development, functional performance testing had been completed and more than 150 issues had been identified from testing throughout the construction phase. A sample of some of the higher priority issues Aramark identified and assisted in resolving included:

- Water source heat pump energy recovery air handling units (ERUs) had experienced frequent nuisance alarms and shutdowns. As a result, temperature and humidity set points within the spaces had not been consistently maintained. The HVAC contractor and ERU manufacturer resolved this issue.
- Two of the ERU’s were not within tolerance of design airflow, coordination with the test and balance and ERU manufacturer was needed to correct this issue. As a result, air circulation issues had been reported and spaces had not maintained temperature and humidity set points.
- Domestic hot water system mixing valve was not controlling a domestic hot water temperature of 110oF consistently and temperatures as high as 130oF had been observed. The plumbing contractor worked with the mixing valve manufacturer to resolve this issue.
- Several water source heat pump issues were identified including air flow balancing issues, heating/cooling performance issues and alarming to the building automation system issues.



B. PROJECT UNDERSTANDING AND APPROACH

PROJECT UNDERSTANDING

Poplar House was built in 1892. It is a 2-story brick Victorian residence located on the campus of Kutztown University in Kutztown, PA. The house boasts Eastlake-style detailing in the front door, rake boards, and window hoods. The interior contains the original plan with a central hall, Eastlake-style stairway, art glass, and impressive woodwork. In 1937 it was subsequently moved to its current location. The purpose of the move was to align it with other buildings of note along Kutztown Road - the University's Official Residence as well as the Graduate Center building. This location, on the northwest corner of the intersection of Kutztown Road and College Boulevard, holds pride of place. It marks the beginning of the Kutztown University campus for people arriving from the east. It is the gateway.

It is important to note that this facility has historical significance to the local community. It was built by a great-grandson of George Kutz, the founder of Kutztown. It is also known locally as one of "The Mansions on the Hill". As such, demolition is not a politically viable option.

The renovation portion of the project must preserve the scale and character of the existing building as it faces Kutztown Road. The addition must complement the existing building and the adjacent Official Residence, and work in conjunction with them to create a "Welcome Center" at this gateway to the University campus for visitors.

Through the years Poplar house was used as housing for faculty and students. Until approximately 2002 it was known as the "Spanish House" and provided housing for students seeking a living/learning community immersed in the language and culture. The building is currently vacant and used for artifact storage for the Pennsylvania German Cultural Heritage Center. The building has been unoccupied since 2002 due to the need for complete life cycle, life safety, fire code, accessibility and IBC code compliance upgrades to support the changing needs of the University.

Reason/Need for the Project:

The University believes having a gateway visitor's center to the campus will enhance its recruitment efforts and plans to reconfigure this facility into a "single stop" location for visitors and prospective students. The facility will house representatives from multiple University offices including, but not limited to Admissions, to support this effort. Currently, no such venue exists and visitors to the campus have no idea where to go to get information or directions. The new center will offer that opportunity as well as provide spaces for community use for meetings and functions. Community relations are becoming an increasingly important aspect of University operations. This facility will be used to support and enhance these relations.

The 2006 and 2013 Kutztown University Campus Facilities Master Plans identified the need to create a welcoming experience for visitors, especially first-time visitors and the families of prospective students, to the campus. A "Welcome Center", prominently located, would draw visitors to a single location where they could interact with representatives of the University for answers to their questions, obtain information on all aspects of Kutztown University academics and life, procure a parking pass and recommendations for parking, interact with the Admissions Office, begin guided campus tours, be exposed to the history of Kutztown University, take part in orientation activities and so much more. Currently these functions take place in multiple facilities across campus. It can be frustrating for visitors to navigate from one point to another.



The "Welcome Center" is also proposed to enhance Town and Gown relationships by providing space for formal and informal meetings between the University and the local community. Use of the meeting facilities by the local municipalities would also be encouraged, especially when related to shared opportunities and concerns of the University.

Goals and Objectives:

The overriding goal of this project is to create a "Welcome Center" for first time and returning visitors to Kutztown University. The Welcome Center is envisioned to include the following spaces/features to enhance interaction between select University offices and visitors as well as to provide a venue able to be used by the local community:

Basement

- Storage – accessible via elevator
- Mechanical and Utility Space
- Server Room

First Floor – Welcome Center

- Welcome Center Lobby – 2-story “Campus Living Room”
- Large Assembly Space (up to 200 people)
- Accessible Toilet Facilities
- Reception/Information Counter
- Coffee Counter/Area
- Private Office
- Employee Breakroom
- 12-16-person Meeting Room / Boardroom
- Catering Kitchen
- Coat Rack/Room
- Display Area for University and Community Information
- Storage

Second Floor – Admissions Suite

- Reception /Waiting Area
- Five (5) Counselor Offices
- Associate Director’s Office
- Copy / Supply Room
- Storage
- Private Meeting Room
- Mailbox Area
- Gallery Space for Student Work / Local Artists
- Unisex Restrooms
- Open Office Area (cubicles for 3 Student Workers)
- Private Single Office

The space program is further described as follows: The first floor addition will consist of a double height welcome center (1,062 SF) organized around a large stone fireplace, a reception/information counter (116 SF), ADA accessible restroom facilities, a catering/warming kitchen (308 SF), and a large assembly space (1,423 SF). The assembly space will offer options for a table seating layout of up to 80 people, or a standing / lecture style organization for up to 200 people. Also on the first floor, the existing building will be renovated to offer an office (160 SF) directly connected to the reception area, a meeting room (354 SF), and a staff break room with kitchenette (184 SF). The meeting room will accommodate up to 14 people in a board room setting. The second-floor addition will consist of an admissions suite with reception area (324 SF), a copy / supply room (49 SF), five (5) staff offices (128 SF ea.), and a director’s office (189 SF). Also, on the second floor, there will be open gallery space in the mezzanine level of the welcome center and a private meeting room (113 SF) for student interviews. The existing portion of the second floor will be renovated to include open cubical office space and work area (517 SF) for three or four student employees, a private office (145 SF), and two (2) unisex ADA compliant restrooms. The basement of the existing Poplar House will be renovated to house building systems, servers and minor storage space. The basement of the addition will be completely open for “long-term” file, record, and furniture/equipment storage. The existing attic / third floor space will remain unoccupied due to ADA accessibility restrictions and low ceiling height.

PROJECT APPROACH

It is evident that in order to truly assist in the short- and long-term success of this project, our commissioning plan requires a unique and varied blend of technical, operational, and engineering expertise. The challenges involved in the construction of this project focus around:

1. Project schedule
2. Complex building systems
3. Increased integration of systems and components
4. MEP technical expertise
5. Project turnover and operations expectations

We are familiar with these significant challenges through our extensive commissioning, operations backgrounds, and experience with capital and operation teams. Our focus is to “bridge the gap” between the construction teams, design teams, project management, and operations groups. Our solution to these challenges is to develop and integrate a unique commissioning program that will provide collaboration between teams, verify that the design intent (installation and performance) is met, establish parameters for acceptance of the construction/end users, and integrate turnover/operations smoothly and effectively.

A summary of the solutions are outlined in the following bullets.

- Creating partnerships and leading collaboration within the project and construction teams
- Providing “on-site” representation to focus and coordinate the commissioning efforts
- Coordinating and integrating teams of professionals in supporting corrective actions
- Establishing parameters and testing requirements for system acceptance as opposed to component acceptance
- Exercising the systems throughout operating ranges, safety and emergency conditions

Aramark will develop a program specifically geared towards the Poplar House Renovation/Addition project at Kutztown University. Aramark will work directly for the PADGS and provide an unbiased, objective view of the systems installation, operation, and performance. As part of the owner’s building systems commissioning process, Aramark will cooperate with and coordinate all commissioning activities with the project manager, design professionals, construction manager, and contractors. This process is not to take away or reduce the responsibility of the design team or installing contractors, but to provide a finished and fully operational product in accordance with design intent.

Our scope of services consists of the following focused efforts:

PROFESSIONAL COMMISSIONING SERVICES – PHASE APPROACH

DESIGN PHASE

Past experience has demonstrated that collaboration, communication, and proper planning are the keys to verifying that the commissioning program is fully integrated into the normal design and construction process. This integration process for the program begins very early by initially employing a carefully prepared kick-off meeting, commissioning plan, and schedule that will guide the effort in and around the construction schedule. The commissioning team leader will develop, organize, implement, observe, document, and lead the commissioning effort in a manner that furthers the success of the project. This effort will not only minimize the impact on project schedule, but also promote efficient system startup and turnover.



A summary of activities in this phase consists of:

- **Owner’s Project Requirements (OPR)** – Working with the DGS Design Project Manager, Design Professional, and the Client Agency facilities maintenance staff conduct an OPR workshop early in the concept design stage to develop the

project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information. Provide descriptions of the following: a) primary purpose of Project, b) environmental and sustainability goals, c) energy efficiency goals, d) indoor environmental quality requirements, e) desired equipment/system quality, reliability, and maintenance requirements, f) facility operation and maintenance requirements including requisite personnel training and orientation.

- **Commissioning Plan (Cx Plan)** – Provide written document that outlines the overall process, organization, responsibilities, schedule, allocation of resources, and documentation requirements of the Commissioning Process to verify and document that the design, construction, and operation of the facility meet the Owner’s Project Requirements (OPR).
- **Design Review** – Provide a review and comments of the Professional’s design documents and Basis of Design (BoD) narrative for compliance with the Owner’s Project Requirements. Design review includes a back-check of Commissioning Design Review Comments at subsequent Design Submission.
- **Commissioning Specifications** – Provide Commissioning Specifications for all systems/assemblies being commissioned for inclusion within the Project Construction Documents.

CONSTRUCTION PHASE

A pivotal aspect of our commissioning program is enabling team reviews and inspections of the systems in their area of expertise (i.e., mechanical, electrical, and plumbing). Deficiencies and outstanding issues are documented in the commissioning database. The intent of the database is to generate a comprehensive list for the project manager to distribute to the design and construction teams for response and action. Subsequent to each focused inspection, a progress report will be issued detailing the deficiencies, resolution actions, and status of each item. We will maintain a current status for each item on the deficiency list as well as document the resolution actions in the final report. The commissioning team leader will act as the point person and bring up issues to the construction and design teams.

The focus of the construction installation phase will include the following:

- **Submittal Review** – Identify and review Contractor submittals applicable to systems/assemblies being commissioned. Identify issues that might result in rework or change orders. Verify the following: a) conformance with Owner’s Project Requirements (OPR) and Basis of Design (BoD), b) achievement of operations and maintenance requirements, c) enablement of performance testing. All submittal reviews and correspondence must take place in eBuilder.
- **Job Construction Meetings** – CxA shall attend regular job construction meetings as necessary to ensure the systems are properly installed, operated and tested, and are functioning correctly to meet the design intent.
- **Commissioning Meetings** – CxA shall hold regularly scheduled jobsite Commissioning Meetings with all project stakeholders to review important aspects of equipment, HVAC system, and Controls System installation. Review and document necessary installation details, system testing procedures, and documentation requirements. Keep meeting minutes and include in the Cx Report.
- **Construction Observation and Testing** – Verify that the performance of the systems/assemblies being commissioned, as installed, meet the Owner’s Project Requirements (OPR), Sustainability Criteria, Basis of Design (BoD), and Contract Documents. Furnish test procedures and checklists prior to equipment installation. Produce a Pre-functional test for each test. Test procedures shall list the entities responsible for executing each test. Provide installation inspections. Direct, witness, and document tests. Evaluate test results and verify that installed systems/assemblies meet the criteria for the Project.
- **Issues and Resolution Log** – Develop a commissioning issues log containing open and continuing items, status, and name of person/organization responsible for resolution.
- **Systems Manual** – During the design and construction of the project, the design and construction documents are to be assembled into the systems manual by the CxA. This assembly of documents provides the details and history of the design and construction of the building and information needed to properly operate the building. The systems manual includes but is not limited to the project final OPR, BOD, construction record documents, submittals, completed startup, verification checklists, functional and performance checklists, verified sequence of operation, facility guide, training

records, and commissioning report. The systems manual should be used in the initial and subsequent training of the building operations staff and occupants.

- **Pre-Functional and Functional Performance Testing** – Confirm (but not necessarily witness) manufacturer’s startup of individual equipment components (Pre-Functional Performance Testing). Write, direct completion of, witness, and document full Functional Performance Testing of each system and system component. Confirm proper operation of all control sequences for each season operation. Document in Cx Report.
- **Training Plans and Records** – Review, pre-approve, and verify training of the Client Agency personnel by the Contractor, to operate and maintain systems/assemblies being commissioned. Include training plan, training materials, and records in final Systems Manual.
- **End of Warranty Cx Report** – Provide post-occupancy operation commissioning, including incomplete, delayed, and seasonal testing, as well as warranty issues. Post-occupancy operations shall begin at Substantial Completion and shall continue through to the end of the warranty period.
- **Preliminary and Final Cx Report** – A preliminary commissioning report should be prepared that shows the commissioning progress and equipment performance to date at the time the Certificate of Occupancy is issued. At the completion of the project the final commissioning report should be assembled and provided to the owner and others as required by the OPR and local jurisdiction requirements. This report includes the final commissioning plan, copy of design and submittal review reports, all startup, inspection, verification, functional and performance test forms and reports, the verified sequence of operation, the final Issues and Resolutions log, and summary of the performance of commissioned systems.

SYSTEMS TO BE COMMISSIONED

- Heating, Ventilating, Air Conditioning and Refrigeration Systems (HVAC) including Heat Generation, Refrigeration, Ventilation, HVAC Control Systems, and Building Management Systems.

C. GEOGRAPHIC LOCATION

The proposed Project Manager, Mackenzie Ailes, is located in Philadelphia, PA which is 71 miles from Kutztown University. Travel time will not be necessary for reimbursement.

Chris Skalski, who will be assisting throughout the project, is also located in the Philadelphia area. Travel time will not be necessary for reimbursement.

D. PROJECT WORK PLAN

SCHEDULE OF MILESTONES

DESIGN PHASE – AWARD OF PROJECT THROUGH FEBRUARY 2023

- Conduct Owner’s Project Requirements (OPR) workshop and develop OPR
- Develop and provide the Cx Plan
- Review and comment on design documents and BOD
- Conduct design phase Cx meeting
- Develop and provide Cx specs for all systems/assemblies being commissioned.

CONSTRUCTION PHASE – MAY 2023 THROUGH MAY 2024

- Perform submittals review
- Conduct Cx kick-off meeting with contractors

- Attend construction meetings as needed
- Hold regular commissioning meetings
- Develop pre-functional test forms and provide to contractors
- Conduct construction observation and testing
- Develop and maintain issues and resolution log
- Witness start-up of Cx systems

ACCEPTANCE PHASE – MAY 2024 THROUGH SEPTEMBER 2024

- Perform functional performance testing of Cx systems
 - Conduct Cx meetings as needed
 - Develop and deliver Systems Manual
 - Review, pre-approve and verify training of personnel.
 - Develop End of Warranty Cx Report
- I. Deliver final Cx Report **Indicate all resources need to complete the assignment including staff assignments, consultants, and reimbursements.**
Aramark will perform all commissioning activities with its own personnel. Staff assignments are indicated in the organizational chart. Reimbursements will be submitted for mileage only which is detailed in Section C above.
 - II. **Note inefficiencies or risks to successful implementation, and any planning efforts to mitigate issues such as travel distance, schedule conflicts and required coordination.**
Aramark has no scheduling conflicts associated with performing the commissioning requirements of this project.
 - III. **Indicate the anticipated number of hours required for completion of the work described in the Scope of Work (Attachment A).**

The estimated number of hours per phase are as follows:

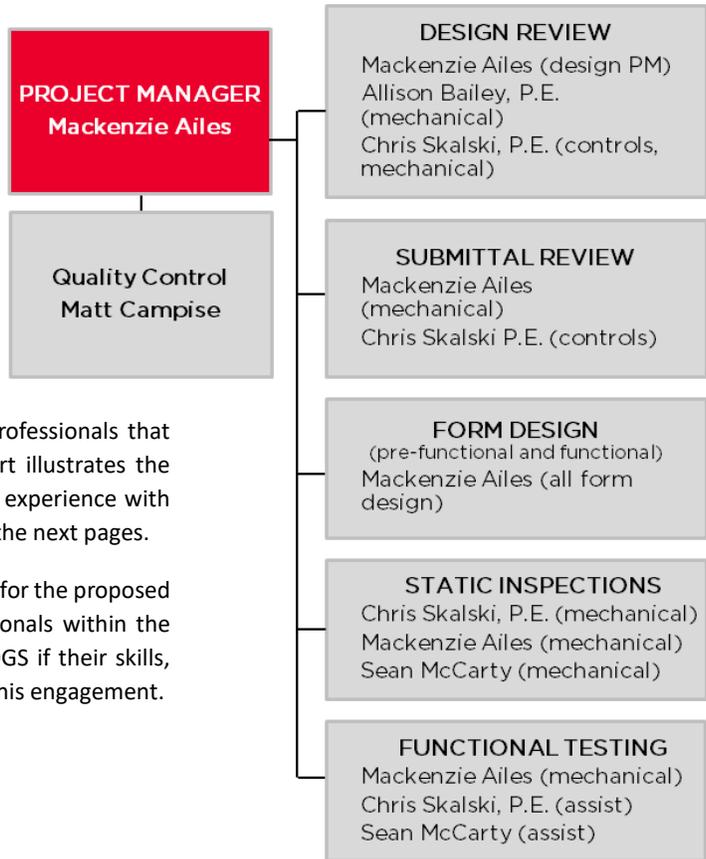
Design Phase:	34
Construction Phase:	234



E. PROJECT PERSONNEL AND QUALIFICATIONS

All of Aramark’s engagements rely on our experienced professional staff to function as the catalyst for the success of the overall program. Our staffing strategy for managing this relationship expertly and efficiently is straightforward:

- Provide PADGS with a qualified commissioning agent to lead the overall program and serve as the primary contact person.
- Support PADGS with a core technical team comprised of individuals with the requisite technical experience and skill sets.
- Provide experienced “quality assurance” resources to verify that the highest level of quality services is provided.



The success of our approach has always been the quality and consistency of our senior leadership as well as the professionals that comprise the core technical team. The organizational chart illustrates the proposed team for this engagement. Biographies including experience with similar projects as well as overall expertise are included on the next pages.

Although the proposed staff will have primary responsibility for the proposed engagement, any of the more than 100 technical professionals within the Engineering Solutions group will be made available to PADGS if their skills, expertise, and/or availability will add incremental value to this engagement.

Aramark’s Engineering Solutions group consists of more than 100 technical professionals including: Professional Engineers (PE) Certified Commissioning Professionals (CCP), LEED Accredited Professionals (LEED AP) and other technical designations. We verify that each facility’s operating, maintenance, and program support requirements are met during construction and renovation.

- | | |
|---|---|
| (17) Professional Engineers (PE) | (14) LEED Accredited Professionals (LEED AP) |
| (27) Certified Energy Managers (CEM) | (6) LEED Green Associates |
| (2) Commissioning Process Management Professionals (CPMP) | (2) Registered Architects/NCARB |
| (4) Certified Measurement Verification Professionals (CMVP) | (3) Certified Building Commissioning Professionals (CBCP) |

MACKENZIE AILES**Manager**

- 1.8 Million GSF Commissioned
- 35+ Commissioning Projects
- Penn State University Bachelor of Science Energy Engineering

Mr. Ailes is a Commissioning Manager for Aramark Engineering Solutions, providing building commissioning services to various projects and clients in the Northeast Region.

Current projects include the Penn State University Hazleton Campus Library Renewal, several projects on the campus of University of Pennsylvania, and projects with the Allegheny Health Network.

Mack is slated as the Project Manager for the Poplar House Renovation/Addition project. His primary responsibility is to ensure that all of the commissioning tasks as described within this response are completed. Kevin will lead the design team; review mechanical submittals; design the functional test forms; perform static inspections; and perform functional testing.

MATTHEW CAMPISE**Associate Director**

- 30 Million GSF Commissioned
- 70+ Commissioning Projects (Project Manager)
- Washington and Jefferson College Bachelor of Arts Chemistry

Mr. Campise possesses more than 29 years of experience in building automation controls and commissioning and has been with Aramark for 14 years. Currently, Matt manages 12 direct reports who perform as commissioning managers primarily throughout the state of Pennsylvania. Matt serves as the Relationship Manager to our larger clients within the state including Penn State University, University of Pennsylvania, UPMC, and Allegheny Health Network. He also serves directly as project manager for several projects at Penn State Health and has completed commissioning for over 10 projects for this client in the past four years.

Matt will primarily be responsible for quality control as well as major issue resolution on this project.

ALLISON BAILEY, P.E.**Senior Cx Manager**

- 10 Million GSF Commissioned
- 50+ Commissioning Projects (Project Manager)
- Ohio State University Bachelor of Science Mechanical Engineering
- Professional Engineer (KY, OH, and WV)

Ms. Bailey possesses more than 22 years of experience in HVAC design, DDC control programming, HVAC system troubleshooting, project management, and project coordination.

Currently, Allison supports commissioning programs throughout the region and is involved in all design reviews as the design lead and mechanical systems reviewer. She is also project manager for several projects at Baylor University and has recently completed, as project manager, our largest commissioning project at the South Halls Residence Facilities for Ohio State University. She has been the design leader for all of the reference projects listed within this proposal and is familiar with the Penn State standards of design for mechanical systems.

Allison is proposed in a support role for this project. She will provide design reviews of mechanical systems.

**CHRISTOPHER SKALSKI, P.E.,
LEED AP, C.P.M.P.**

Senior Cx Manager

- 4.0 Million GSF
Commissioned
- 35+ Commissioning Projects
- Pennsylvania State University
Bachelor of Science
Mechanical Engineering
- Bloomsburg University
Bachelor of Arts
Physics

Mr. Skalski is a Professional Engineer and LEED Accredited Professional with more than 16 years of experience as a building commissioning agent, including extensive experience in HVAC and Plumbing systems design, building automation, and DDC systems. On behalf of Aramark, Mr. Skalski is the commissioning team leader for several of Aramark's higher education clients. His responsibilities include engineering design reviews, installation quality assurance, pre-functional/performance testing, initiation of corrective actions, and operator training.

Chris is proposed in a support role for this project. He will perform design reviews and submittal reviews and assist with static inspections of the mechanical installation. In addition, he will assist with functional testing of the mechanical systems.

**SEAN MCCARTY, M.S.M.E.,
E.B.C.P., LEED AP BD+C**

Cx Manager

- 7.0 Million GSF
Commissioned
- 35 Projects
- University of Alabama
Master of Science
Mechanical Engineering
- University of Alabama
Bachelor of Science
Mechanical Engineering

Mr. McCarty has 14 years of energy management and building commissioning experience. Currently working in the North Atlantic region as a Project Manager, he has been involved in all aspects of commissioning from new building commissioning MEP design review to retro-commissioning energy analysis. As a preferred project manager for some of our top clientele, he is capable of providing the services needed to present a result that exceeds expectations.

Sean is proposed in a support role and will assist with static inspections and functional testing of the mechanical systems.



F. APPENDIX

Aramark Management Services Limited Partnership is pleased to submit the attached proposal to provide Commissioning Agent Services for the Poplar House Renovation/Addition project at the Kutztown University for the Pennsylvania Department of General Services (PADGS).

We would be honored to be selected to perform commissioning and appreciate the opportunity provided to build on our relationship with the PADGS. We would dedicate the appropriate resources to provide the highest quality services. We understand the importance of the integration and seamless operation of the building system infrastructure. Aramark is one of the largest third-party commissioning agents in the United States, and our unique operational expertise distinguishes our service from our competitors.

HISTORY

For more than 35 years, Aramark Engineering Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. We bring a customized approach based on the individual drivers of each organization.

Aramark has extensive experience and technical capacity to meet, and exceed, the required needs for commissioning the Poplar House Renovation/Addition project. Aramark has been commissioning buildings and their increasingly complex systems for more than three decades. We have commissioned more than \$11.2 billion and 70 million GSF of new and renovated facilities. Our technical credibility, operator's perspective, and construction experience has and will continue to aid in the satisfaction of each commissioning project's many objectives.

Our commissioning philosophy is guided by the following three tenets:

1. Provide a facility that operates to support the program
2. Verify systems achieve peak efficiency
3. Confirm building infrastructure is readily maintainable by the operators

Our services will facilitate a seamless transition to the operations group and provide a technical resource to support the building operations.

Aramark is a national leader in providing complete facility management solutions in education. Our dedicated technical services include:

- Building Commissioning
- Building Retro-commissioning
- Energy Management
- Utility Master Planning
- Deferred Needs Assessment
- Engineering Design Review

